

Memorandum
re Prior Art
w/ Petition
Fee

In re the Reissue Application of:

For Reissue of U. S. Patent 5,630,363

Issued May 20, 1997

Serial No. 08/515,097

Filing Date: May 20, 1999

Serial No.: 09/315,796

For:

COMBINED LITHOGRAPHIC/ FLEXOGRAPHIC PRINTING APPARATUS AND PROCESS



Group Art Unit: 2854

Examiner: S. Funk
J. Hilten

**REISSUE APPLICANTS' MEMORANDUM CONCERNING THE PRIOR
ART AND POSITION ON PATENTABILITY - TRANSMITTAL LETTER**

TO: Honorable Commissioner of Patents and Trademarks
Washington, D.C. 20231

SIR:

The attached Reissue Applicants' Memorandum Concerning the Prior Art and Position on Patentability contains information which may be subject to the fee pursuant to 37 C.F.R. §1.97(c) and 37 C.F.R. §1.17(i).

A fee in the amount of \$130.00 is attached.

A duplicate copy of the Transmittal Letter is attached.

Respectfully submitted,

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IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re the Reissue Application of:

BILL L. DAVIS and JESSE S. WILLIAMSON

For Reissue of U. S. Patent 5,630,363

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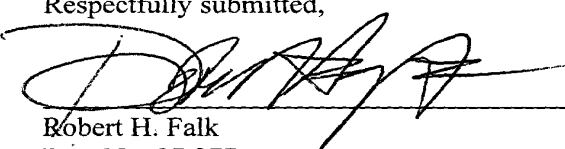
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PATENT
Our File: WILL 2501

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re the Reissue Application of:

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SIR:

Reissue applicants previously submitted an Information Disclosure Statement and a Supplemental Statement of Prior Art and Other Information having eight Appendices of Prior Art and other information.

Attached hereto are the declarations of Baker (Blue Tab A), Bird, (Blue Tab B), Brown (Blue Tab C), Supplement to Bird (Blue Tab D) and Garner (Blue Tab E).

Reissue applicants wish to comment on the prior art and non-prior art listed therein, and, furthermore provide comments on the patentability of their invention in view of that prior art, other information, and the developments at their assignee (WPC) and their litigation adversaries (DeMoore, PRI) as follows:

I.

THE WIMS '976 PATENT PROVIDED THE UNIQUE MOTIVATION
TO APPLICANTS TO MAKE THE PRESENT INVENTION

The invention of the '363 patent was precipitated by reissue applicants' awareness that the results achieved by their assignee Williamson Printing Corp in the early 1990s in reproducing on a substrate, e.g., paper, an image incorporating certain metallic inks were not the ultimate results desired for particular uses.¹

In an offset lithographic process, moisture from the dampening solution tends to oxidize and/or to dull metallic ink reproduction, which results in a less desirable degree of brilliance of the metallic inks on the resulting printed material.

The WIMS '976 methodology was a notable advance in the offset lithographic art in reproducing metallic subject matter, but lacked the ultimate desired brilliance sought in automobile advertisements, jewelry advertisements, and any type of silverware/flatware advertisements, as well as various other metallic subject matter advertisements. The printing of these types of advertisements was one of the anchors of reissue applicants' assignee's Williamson Printing Corporation's (WPC's) boutique high-quality printing business.

In late May of 1992, one of reissue applicants, Jesse Williamson, visited Germany with a supplier of metallic printing inks and observed, in his opinion, on unusual, end-of-press flexographic tower coater unit, which he believed could be used to improve the WIMS process. Williamson discussed the possibility of running metallic waterbased inks through the unit. The issue of having to run the metallic last was discussed as a problem, and Williamson discussed with the supplier how the problem could be overcome. As of May 1992, flexography had

¹ Specifically, the aesthetic results achieved by the Williamson Integrated Metallic Systems ("WIMS") process, U.S. Pat. No. 5,370,976, incorporated by reference in the instant application (col. 8, lines 8-12), which while clearly far superior to conventional four-color process printing of subject matter containing metallic images, was deemed by reissue applicants as subject to still further improvement, especially involving the application of metallic golds and silvers, which are difficult to reproduce. Four color process printing integrated with metallic colors has only occurred on a commercial scale in the last generation, first through the MIPP system ("Metallic Integrated Printing Process") by Eckart-Werke Metal Pigments and Powders of Furth, Bayern, Germany, and much more recently, reissue applicants' assignees' WIMS process, which, among other things, dramatically improved the efficiency of MIPP to make film for reproduction purposes (e.g., printing plate). MIPP, in reissue applicants' view, required laborious multiple, non-electronic, hand-masking steps.

generally been relegated to the printing of labels, packaging and flexible packaging, and was not generally deployed in the fine printing arts, e.g., commercial offset lithography. Flexography was generally considered a crude art as of May 1992 because of comparatively *poor resolution* -- i.e., dot reproduction. Resolution in flexography, however, was advancing quickly.² Reissue applicants collaborated after the trip and concluded in joint conception that to improve the WIMS process, flexography could occur prior to final offset lithography, and could be accomplished through (1) a bolt-on device, similar to a Townsend Manufacturing Company T-Head device, (2) a dedicated O.E.M. flexographic printing/coating station, or (3) the use of a modified, interstation auxiliary retractable or "rack-back" blanket coating device. It is reissue applicants' position that at least alternatives (1) and (3) as of late May 1992 were readily reducible to practice without undue experimentation.

It is further reissue applicants' position that a fair reading of the pertinent art indicates that as of the first date of their invention, the artisan had no motive to employ flexography ahead of final offset lithography, and would not have tried such a step. In fact, reissue applicants believe that as late as 1994-5, the only people anywhere in the world which would have had the motivation to go "upstream" with flexography in an offset lithography press would be a printer or a manufacturer of inks or coating, probably metallic inks or coatings. Bird Decl. ¶6.

With WPC's negotiations for five new Heidelberg presses from Heidelberg Druckmaschinen A.G. in late July-early August 1994 and their imminent installation starting in late 1994 running into 1995 (the first seven-color press was installed in October 1994), and after several years commercial experience with the WIMS process and the issuance of the WIMS '976 patent in December 1994, reissue applicants saw that commercial implementation of its already-conceived improvements to the WIMS proprietary methodologies was absolutely necessary for

² The only U.S. patents (recently found) known to reissue applicants attempting to marry the diverse flexographic and offset lithographic arts were U.S. Patent 5,181,471 and its parent, 4,884,504, to Sillars, who discloses for metallic can printing a highly specialized process of applying flexographic printing *after* "offset" printing [lithography] on a multi-image printing unit comprising a two-sided hexagonal cylinder, each face of which has a flexographic printing plate. No mention is made of the application of any such "married" offset-flexographic printing technology to multi-station sheetfed operations.

by the printing press manufacturers for their presses, which cost printers millions of dollars. It is further seen that by using upstream flexography, e.g., by sealing the freshly-printed sheets with a clear, either aqueous or ultraviolet, coating prior to tumbling the sheets in a sheet fed perfector press, the undesired marking and smudging would be minimized.

II.

THIS ADVANCE WAS NOT TAUGHT BY OR FORESEEABLE
IN VIEW OF THE PRIOR ART COATING TOWERS AND
FLEXOGRAPHIC APPLICATIONS ON SHEET-FED PRESSES
WERE LIMITED TO END-OF-PRESS BLANKET COATERS

These optimum and surprising additional results could not have been achieved through use of traditional end-of-press coating towers, e.g., U.S. Pat. No. 4,706,601 to Jahn, or by deployment of sophisticated five-cylinder printing stations, such as Fischer, U.S. Pat. No. 4,421,027.

More specifically, Jahn, U.S. Pat. No. 4,706,601, remains the world standard regarding commercially-deployed end-of-press dedicated tower coater technology. The '601 technology is used in the Heidelberg Model 102 Speedmaster presses in literally hundreds, if not thousands, of printing plants. Jahn teaches an end-of-press roll coater capable of either flood coating or overcoating lacquer. Reissue applicants submit that the application of aqueous coatings, UV coatings and flexographic metallic inks was not envisioned by Jahn '601. The goal of the '601 was to seal over freshly-printed substrate materials, which had been subject to multistation offset lithography, so that the substrate could be delivered with minimal marking and smudging.

Some effort had been made in the prior art, even before Jahn '601, to modify presses to add coating apparatuses at the last printing unit, and to avoid undesired set-off, i.e., smudging of the freshly printed sheet from the back side. Some of these apparatus were complex, such as Fischer, U.S. Pat. No. 4,421,027, rarely if ever deployed in industry on a commercial scale. Fischer '027 arguably hinted about the possibility of flexography in the last two cylinders in Figures 1 - 3 of the '027 patent in the last printing station of a printing press. While Fischer remarked at col. 3, lines 8 - 10 that the last cylinder (number five) could have an inker and a

REISSUE APPLICANTS' MEMORANDUM CONCERNING
THE PRIOR ART AND THEIR POSITION ON PATENTABILITY

dampener, Fischer '027 gave no teaching, let alone the desirability, of flexographic *printing* prior to offset lithography in a separate upstream *printing* station. Efforts were made in legion number for applying *coating* as an in-line operation by using the last printing unit of the press as a *coater*. Note U.S. Pat. No. 4,270,483 to Butler et al. and U.S. Pat. No. 4,779,887 to Frazzitta. Butler et al. '483 taught an in-line removable *coating* apparatus for attachment to a conventional offset lithographic printing press. The apparatus included a set of pick-up and application rollers to deliver coating material from a reservoir to a standard press unit blanket cylinder. The entire apparatus was constructed as a unit, and was removable from the press when not in use.

Other artisans made some effort to teach that the next-to-last station of a press could also be utilized for coating indirectly from the plate cylinder, utilizing the dampener tray as a reservoir for the coating and the dampener roller as the *coating roller*. This so-called "double bump" would have been done in an attempt to increase the trim thickness of coating on the substrate. It was seldom, if ever commercially practiced as far as reissue applicants are aware. Note Bird, U.S. Pat. No. 4,841,903. Like Fischer before him, Bird gave no hint in the '903 patent as to the possible deployment of a station for flexographic *printing* prior to offset lithography. Methods such as Jahn '601, Fischer '027 and Bird '903 were inadequate to reissue applicants for the improvement of the WIMS methodology, i.e., these methodologies did not allow reissue applicants to print integrated metallic inks with metallic color (or allow single passes for printing opaque colors) as none of these end-of-press methodologies allowed for printing flexographically prior to offset lithography.

III.

THE STATE-OF-THE-ART ADD-ON, AUXILIARY RETRACTABLE COATER ASSEMBLIES

Various rail and other retractable assemblies (some, so-called "rack-back" assemblies) existed in the prior art, i.e, as add-on, auxiliary blanket coaters for end-of-press traditional offset lithographic stations to convert them into a temporary station for coating. In U.S. Pat. No. 4,617,865 to Switall, a basic rail assembly is disclosed, but without a chambered doctor or anilox

REISSUE APPLICANTS' MEMORANDUM CONCERNING
THE PRIOR ART AND THEIR POSITION ON PATENTABILITY

roller. Switall '865 taught a coating apparatus using the blanket cylinder of the last printing unit of an offset lithographic press. Dirico et al. of Dahlgren International likewise disclosed in U.S. Pat. No. 4,825,804 a retractable rack-back assembly which engaged either blanket or plate cylinder of an existing final stage or "last [printing] unit" of an offset printing press, with the capability of printing directly from the blanket cylinder utilizing the offset blanket as a plate, or indirectly from the plate cylinder utilizing the lithographic plate to transfer the material from the plate cylinder onto the blanket cylinder and onto the substrate. The '804 discloses use of a textured application roller, a metering doctor blade and a coating supply See col. 2, lines 36-40. Note Dirico et al.'s earlier teaching, U.S. Pat. No. 4,685,414, also having a doctor blade assembly and an anilox roller ("textured metering roller"). Dirico in the '804 indicated no chamber was mandated, but a textured (i.e., anilox) roller and a doctor blade and a coating supply were suggested. No chambered doctor was taught. Sliker et al. taught in U.S. Pat. No. 5,107,790 a dual-headed coater, the second coating head adapted to fit for engagement to the plate cylinder on the opposite side of the printing tower. Sliker, et al. taught spot-coating (Fig. 2) and blanket coating (Figs. 1 and 3) assemblies. It is believed that sales of the Sliker et al.'s '790 rack-back assembly were successful, excluding the second coating head taught in his patent, which was generally not ordered by his customers. Sliker et al. '790 taught neither the use of an anilox roller nor a chambered doctor. Dahlgren International, Inc. (Carrollton, Texas) disclosed in a series of patents starting in the late 1980s (U.S. Pats. 4,934,305 and 5,178,678) retractable coaters having an anilox roller and chambered doctor ('678 patent). Claim 14 of the '305 mentioned a "photopolymerplate," but there is no general teaching in the '305 of the use of that plate for flexographic *printing*. There is no teaching in Dahlgren's '678 patent of flexographic printing or even a flexographic printing plate. *None of these patents taught the use of a retractable auxiliary blanket coater used with a flexographic plate for half-tone flexographic printing.*

REISSUE APPLICANTS' MEMORANDUM CONCERNING
THE PRIOR ART AND THEIR POSITION ON PATENTABILITY

As of the fall of 1994 in the United States, to the best knowledge of reissue applicants, so-called auxiliary "coaters" were generally used for flood coating and occasionally spot coating on the last printing unit of an offset lithographic press. These coaters were generally relegated in their uses to what the trade calls "overprinting" or "overcoating" (i.e., flood or seal coating) an aqueous coating to prevent smudging and marking of the freshly printed sheets on the last printing unit of multi-color offset lithographic printing presses. Rarely, spot coating of select images was used over varnish applied by a printing unit upstream, to provide a contrasting effect.

The 1994-distributed advertisement for a "Plate Blanket Coater" or ("PBC") of Printing Research, Inc., *infra*, was, in reissue applicants' opinion, typical of the limited claims manufacturers made for such retractable devices:

Our Plate/Blanket Coater (PBC) maximizes your *coating* flexibility, giving you more precise control and broader capabilities than ever before. Offering full-coverage gloss or matte *coatings* as well as *spot coatings* of impeccable register and quality, the PBC smoothly and consistently applies uniform *coatings* of a wide viscosity range to any desired thickness.

- Precision spot-register applications
- Elimination of halos and hard/beaded edges
- Maximum *coating* application

The advent of *coatable*, water-based and UV-curable resins offers sheetfed color printers the unprecedented power to add high gloss levels, special effects and unusual surface treatments to their range of in-house capabilities. These *coatings* vastly exceed the gloss potential of varnish, while banishing forever the mess and quality problems spray power causes in the pressroom.

Because the PBC is easily retracted when *coating* is not necessary, the press unit used for coating can function as a full printing unit whenever you need it. Or, you can easily establish a dedicated coating line on an under-used press. What's more, with our *coaters*, you will eliminate forever the press downtime associated with blanket cutting, packing and image registration. No other *coater* can accomplish this.

Our *coaters* minimize wash-up and makeready, offering unrivaled time and cost savings. Ruggedly constructed, easy to operate and maintain, our patented *coaters* are on the leading edge of industry technology.

The PBC provides unparalleled quality control, enabling you to *coat* with as much control as you print. *Coating* material is applied as if it were another ink color, using your printing unit as it was designated to operate – to lay down a precise film membrane on the substrate.

What's more, the PBC achieves this high-impact appearance in a fraction of the time it takes in varnish or laminate – and without the mess and quality control problems associated with these now obsolete methods. So your customers receive the highest quality product, with an incredibly fast turnaround.

The PBC applies *coating* either at the blanket, for full coverage work, or at the plate, for precise register application of *spot coating* without hard edges. Or when coating is not necessary, it can be easily retracted to allow for regular printing uses. Unlike other *coater* designs that haphazardly squeeze *coating* material onto substrate under pressure – slinging coating material – the shear-*coating* PBC works neatly and precisely.

In the blanket mode when overall coverage is required, PBC's design provides for fast makeready and smooth application of the *coating*.

In the plate mode, the coater applies *coating* to a relief image on the plate cylinder to apply a uniform thickness of the coating film to the blanket cylinder. This *coating* "image" is then transferred by the blanket to the substrate, ensuring precise registration in all areas. *Coating* thickness and pressures between the plate, blanket and impression cylinders are all accurately and easily controlled. [Emphasizing italics supplied.]

Note that no claim is made that the "PBC" is capable of applying metallic inks or other opaque inks or other flexographic inks. It was not until after reissue applicants' first simulation of the invention in March 1995 that PRI published an amended brochure, infra, emphasizing that their PBC could be used for flexographic *printing*.

IV.

REISSUE APPLICANTS AND THEIR ASSIGNEE'S RECENT, LITIGIOUS RELATIONSHIP WITH PRINTING RESEARCH

In late July/early August 1994, reissue applicants' assignee came to a verbal agreement with Heidelberg Druckmaschinen A.G. to purchase five offset lithographic printing presses, which ultimately totaled about \$18 MM, believed to be at the time the largest single order of offset lithography presses in United States history. The order was precipitated after a sixteen month study of the advantages and disadvantages of three major lines of presses, and the realization that reissue applicants' existing line of Komori Lithrone and OMCSA presses were aging, lacked automation and, importantly, had an insufficient number of stations to handle, in one continuous pass, the necessary number of gold and silver and other opaque applications for the WIMS process.

REISSUE APPLICANTS' MEMORANDUM CONCERNING
THE PRIOR ART AND THEIR POSITION ON PATENTABILITY

In the previous month, July 1994 reissue applicants witnessed at Heidelberg a demonstration of an end-of-press tower coater with BASF flexographic plates and having an anilox roller and a chambered doctor, and believed that an anilox roller and a chambered doctor, when used with state-of-the art flexographic plates in a rack-back mechanism, would provide the quality printing of flexography desired in the new process (the German press manufacturer was printing metallic subject matter with a flexographic plate, standard labels and greeting cards, but not with half tone images). Reissue applicants' realization, if implemented, would limit the degree of choices for their preferred embodiment to certain rack-back assemblies sold by auxiliary manufacturers, as any rack back mechanism would have to be modified for interstation deployment to fit a given existing commercial offset press, and time was of the essence given the assignee's investment and assignee's unique opportunities. Among the auxiliary manufacturers of rack-back coating mechanisms were Dahlgren International/Dahlgren U.S.A. (Carrollton, Texas), Epic Products (Ft. Worth), and much more recently, Printing Research (Dallas, Texas), all using by the mid-1990s anilox rollers in conjunction with chambered doctors. Note U.S. Pats. 4,934,305 and its continuation-in-part, U.S. Pat. No. 5,178,678 to Koehler et al. of Dahlgren, the senior and leading manufacturer of these devices since the late 1980s. Reissue applicants understand that Dahlgren has sold in the last decade at least about several hundred of the '305 or '678 devices in commerce to modify end-of-press units, with the advantage that, for the '678 version, the last printing unit can print and coat simultaneously. Reissue applicants do not recall that any of these rack-back coating manufacturers ever advertised sale of their units as a *printer*, let alone supplied with flexographic plates.

In August of 1994, reissue applicants explained their new process to a salesman for Heidelberg U.S.A., Scott Brown, Brown Decl. ¶2, and indicated they wanted to conduct simulations of their process invention at the Heidelberger Druckmaschinen headquarters in Germany. *Id.* Brown contacted BASF concerning BASF's flexographic "round exposure unit" for making flexographic plates in September 1994. Brown Decl. ¶3. While the trip to Germany

REISSUE APPLICANTS' MEMORANDUM CONCERNING

was originally scheduled December 10, 1994, it was rescheduled to after the holidays, January 20-21, 1995. Brown Decl., ¶3.

On October 1, 1993, the assignee of reissue applicants and their owners, including reissue applicant Williamson, had settled a lawsuit with Printing Research Inc., whereby the assignee of reissue applicants was obligated to purchase a specified dollar amount of equipment and/or supplies from Printing Research in five years. Knowing that their old presses needed to be replaced, and were in any event inadequate to meet the optimum expectations for WIMS for certain applications, and the increasing demand for more colors on the printed sheet, reissue applicants and their assignee waited until a decision had been reached as to which line of presses would replace the aging and inadequate Japanese and Italian equipment. As soon as that decision was made in early August 1994, reissue applicants chose to purchase drying equipment from Printing Research for their new presses to satisfy the balance of their obligation to Printing Research under the October 1, 1993 settlement agreement. *Believing that they were protected under an agreement with Printing Research whereby their assignee's trade secrets would be maintained in confidence, reissue applicants disclosed to Printing Research their invention, including the embodiment of having a flexographic station print prior to one or more lithographic stations, and the preferred embodiment of using a rack-back mechanism with an anilox roller and a chambered doctor.*

Specifically, in late July 1994 with the approaching agreement by reissue applicants' assignees to purchase drying equipment of Printing Research, and following reissue applicants' trip to Heidelberg, one of the salesmen of Printing Research assigned to the Williamson Printing account, Steven Baker, met with reissue applicants in Atlanta, Georgia, and toured several printing plants. Steve Baker met with reissue applicants at an Atlanta restaurant, and was shown advertisements made by the WIMS process. Baker Decl., ¶5. The parties discussed the WIMS process *and reissue applicants explained their inventive process in confidence to the PRI salesman.* Note Baker Decl., ¶¶ 4, 6. Reissue applicants talked to this PRI salesman about

REISSUE APPLICANTS' MEMORANDUM CONCERNING
THE PRIOR ART AND THEIR POSITION ON PATENTABILITY

applying or printing litho ink over flexo ink in-line on a sheetfed offset lithographic printing press, i.e., employing what had previously in the art been considered to be a simplistic, if not crude technology -- flexography -- "upstream." Baker Decl., ¶7. In fact, one of the companies toured had installed a Printing Research HV dryer in one or more of the presses, and the PRI salesman understood that the reason for the interest was that for the proposed novel process to work, the flexo ink would have to be dried before the litho ink, or one would have to use multiple pass offset lithography, i.e., "dry-trapping" the litho over the flexo ink.

Reissue applicants contend that although resolution in flexographic plates was rapidly advancing, one skilled in the art in July 1994 would not have expected the use of a flexographic printing plate with an end-of-press coater to present on a substrate sufficient *resolution* to be compatible with offset lithography.

Reissue applicants inquired of this salesman of PRI whether PRI had any retractable equipment like Dahlgren's which could be modified to go "upstream." The PRI salesman replied in the affirmative, and stated that PRI had a "rack back" coater similar to Dahlgren International's -- the one indicated above advertised -- now having recent improvements involving an anilox roller and a chambered doctor. Note Baker Decl., ¶7. At this time in 1994, to the best of reissue applicants' knowledge, regarding flexography, PRI had only commercially developed the so-called "E-Z" coater, infra, -- then believed by reissue applicants to be a failure in the commercial marketplace -- and the parties discussed the possibility of installing a variation of this between units and then using the HV dryer to set the flexo ink prior to applying the litho ink. Reissue applicants rejected the "E-Z" approach for an interstation flexographic use, and indicated that an end-of-press rack-back unit, e.g., the "PBC," would have to be modified. The parties agreed to having an experiment for reissue applicants' assignee of PRI's "PBC" end-of-press rack-back in October or November. See Baker Decl., ¶8; Bird Decl., ¶12. However, reissue applicants themselves -- not PRI -- obtained for use in the experiment the state-of-the-art *flexographic printing plates and inks* -- all with an eye to determine what *resolution* could be obtained by

PRI's rack back device to *print flexographic inks* -- particularly golds, silvers and other opaques -- as opposed to coatings. Note col. 11, 46-54, col. 11, 1-10, and lines 20-25 and col. 10, lines 53-67 of the '363 patent. Reissue applicants participated in a series of experiments conducted at reissue applicants' direction of this end-of-press rack-back on PRI's two-color press in the fall of 1994 using Williamson Printing Company's-supplied flexographic printing plates, Wolstenholme (Manchester, U.K.) metallic flexographic inks, and other (Bordon) opaque flexographic inks, to determine resolution. Note again, Baker Decl., ¶8; Bird Decl., ¶12. Reissue applicants contend the art had not appreciated by the summer or fall of 1994 the potential benefits of using state-of-the-art flexographic printing plates and flexographic inks in conjunction with auxiliary rack back units to make half-tone flexographic printing *prior* to offset lithography.⁴

In the meantime, the same PRI salesman, upon returning to Dallas to the offices of PRI, informed John Bird (mentioned above) and Steve Garner, other employees of PRI, of reissue applicants' invention. Baker Decl., ¶9; Bird Decl., ¶10.

Bird started having meetings with Jesse Williamson and Bill Davis of Williamson Printing Corporation -- and sometimes only Bill Davis -- on or about August 18, 1994. Bird Suppl. Decl., ¶2. A total of 23 or so references to Williamson Printing Corporation, Davis or Jesse Williamson exists in Birds monthly "Day-Timer[s]", indicating at lease seven meetings with both Davis and Williamson and another seven meetings with Davis. *Id.* In these meetings and conferences, starting on or about August 18, 1994, Davis and/or Williamson conveyed to Bird details about the process they wanted implemented by a modified "rack-back" device to go upstream, together with tests they wanted in the fall of 1994, end-of-press a the two color

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The technology of flexographic plates saw tremendous improvements between the late 1980s and the early-to-mid 1990s. By the mid 1990s, each of W.R. Grace/Polyfibrion Technologies, Inc. (Lexington, MA), duPont (Wilmington, DE) and BASF (Holland, MI and Stuttgart, Germany) were marketing readily available state-of-the-art high resolution flexographic photopolymeric plates, marketed under the brand names of Flex-Light Splash™, Cyrel™ and Nylocoat™, respectively. The resolution capability of the product of these three companies leap-frogged each other on a product-by-product basis. By late 1994 the resolution of these plates had reached 155 lines per inch and could hold a 2-3% dot. Depending on the plate selected, flexography could be performed on solvent-based or the more environmentally safe aqueous-based systems. Technically, reissue applicants had no preference between the photopolymeric plates of the three major U.S. market suppliers as of early-mid 1995.

experimental test press at Printing Research, Inc. Bird Suppl. Decl., ¶3. Specifically they discussed *in various meetings in August 1994 and ending in late 1994*:

- (a) the resolution requirements for their flexographic plates;
- (b) requirements for anilox rollers, including line-screening count ranges and minimums, and the availability of anilox rollers having these features;
- (c) the WIMS process (now U.S. Pat. 5,370,976);
- (d) problems with the printing of metallics / whites / opaques / encapsulated essences / various other coatings with WIMS '976;
- (e) their desire that the flexographic plates be mounted on the blanket cylinder;
- (f) their uses and requirements for flexographic inks; and
- (g) half-tone printing,

all using the new process. Bird Suppl. Decl., ¶4. Bird took this information and passed it along to Ron Rendleman, sometimes Howard DeMoore, Steve Garner, Steve Baker and Dave Douglas, with Ron Rendleman being the principle person with whom Bird discussed Williamson Printing Corporation's specific requirements and the information in the aforesaid meetings. Bird Suppl. Decl., ¶5.

Garner, former President of PRI and a Vice President during the 1994 - 1995 events, is consistent with Bird's testimony. Garner indicates that during the critical period, no one at PRI indicated that he / they had invented what is now the '363 process, and that the development at PRI, starting in December 1994, followed Bird's input concerning the desires of WPC.

Accordingly, starting in late 1994, and following the discussions from August 1994 - November 1994, PRI developed at WPC's request a *short arm* cantilevered, retractable coater for use on a dedicated end-of-press tower coater, which was called internally within PRI "the Rendleman coater," named after yet another PRI employee.⁵ *Id.* Note Baker Decl., ¶¶ 7-8; Bird

⁵ WPC requested a short-arm retractable coater, as opposed to the ultimately desired interstation coater so that delivery could be expedited and testing and development could be evaluated as soon as possible, as engineering and fabrication time for an experimental short-arm device was much quicker and the short-arm device at end-of-press would be easier to install to easier to modify at end-of-press.

Decl., ¶¶ 10, 13, Bird Suppl. Decl., ¶7. Part of the prototype cantilevered *short arm* "Rendleman coater," sitting on a bench for use at the tower coater at end of press, was shown to reissue applicants in December 1994. It had not been installed on any unit at PRI. Reissue applicants maintain, given the fact that PRI had at its facilities only an old two-color Heidelberg printing press, there was no way PRI could fairly simulate, let alone reduce to practice, the invention or appreciate or foresee its ultimate benefits. The *short arm* prototype could only be mounted on an end-of-press tower coater of a commercial Heidelberg press, which was not present or part of either unit of PRI's old two-color press.

As indicated previously, reissue applicants, aware that they had ordered a Heidelberg six color press with two coating unit end-of-press expected to arrive in March, had determined in the summer of 1994 that it was necessary to evaluate a chambered doctor system as used on one of the coating units as an option. See Brown Decl., ¶¶ 2-3. They elected on January 20-21, 1995 to simulate, on-line, the invention based on negatives of a prior Rolex and Lexus gold metallic advertisements where WIMS had previously been employed, and compare the results of their simulated off-line invention with the prior WIMS results using standard lithographic metallic inks in line. Reissue applicants carried their Rolex and Lexus brochure negatives to Heidelberg, and the anilox roller on the preexisting Heidelberg five color unit was used in a three pass run -- the first two passes gold and then silver in flexographic runs followed by a lithographic run. In attendance at the tests were reissue applicants, Wolstenholme personnel, and representatives from Heidelberger Druckmaschinen A.G. and its subsidiary, Heidelberg A.S.A. Both Wolstenholme and Eckart flexographic metallic inks were used, and BASF plates supplied by Heidelberg. Brown Decl., ¶¶ 4-5. Several hundred impressions were made. Brown Decl. ¶5. The results, compared against the WIMS prior advertisements, were startling, and reissue applicants and the other attendees fully appreciated the dramatic and surprising results that their invention would produce. The enhanced brilliance of the Rolex advertisements and Lexus brochure were memorable. Note Brown Decl., ¶6. Reissue applicants continued work towards

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filing their process patent applicant, and informed PRI of their simulation and the forthcoming patent application. Note Baker Decl., ¶10; Bird Decl., ¶¶ 14-15. Reissue applicants decided to have their forthcoming six color Heidelberg press delivered with a roll coater, and decided to add a retractable short arm auxiliary anilox roller to the first tower of the triple tower press.

Knowing that the results by simulation of their process invention would be a success, reissue applicants committed in early February 1995 to install the only existing experimental *short-arm* Rendleman coater on the coating tower of their assignees' new Heidelberg seven color press, the first Heidelberg press delivered the previous fall. The *short arm* device could not be installed on any Heidelberg printing station, but only on an end-of-press coating tower. The *manually-engaged, short arm* unit was installed on the new Heidelberg color press on the end-of-press tower coater for engagement with the blanket-plate cylinder in late February 1995. Reissue applicants believe PRI was not asked, nor did it, supply to WPC flexographic plates or inks in early 1995.

On February 11, 1995, knowing that an interstation auxiliary unit would achieve successful results, and having sufficient confidence in PRI's development of the requested short-arm device, one of reissue applicants requested PRI to design and install a modified, *long-arm* version of the experimental, *short-arm* coater on the first station of a new six color triple tower Heidelberg press -- a different new press than the seven color Heidelberg press mentioned above -- which coater was to be an interstation coater. Note Bird Decl., ¶15.

Knowing that simulated off-line processing would yield successful results, by March 4, 1995, using the *short-arm* device, reissue applicants were already demonstrating to third parties, including the foreign press in their plant in Dallas an off-line, or multiple pass, non-continuous reduction/simulation of the invention, and commercial off-line reductions/simulations were occurring by March 20, 1995. PRI employees, including Bird, witnessed some of the simulations. Bird Decl., ¶16; Bird Suppl. Decl., ¶8. Reissue applicants won an award for their first March 20, 1995 commercial off-line reduction/simulations, which were performed for Mills

EZ Interstation Flexo *Printer/Coater*

The Super Blue EZ Interstation Flexo *Printer/Coater* is retractable so that it can be swung up and above the reprint unit for conventional printing or swung into the blanket position to offer complete application variations from job to job. The patented coating head assembly is comprised of two main components. A combination of engraved anilox rolls are offered to provide a consistent overall ink/coating weight. The anilox rolls yield excellent ink/coating release and lay characteristics with no fear of plugging, leaking, or misting due to the unique enclosed doctor blade assembly." (Emphasis italics supplied)

This different, *long-arm*, automated, coating device would take some time to be manufactured, and on information and belief, PRI did not even start serious work on the unit until late May 1995 or early June 1995. Reissue applicants believe that the design and manufacturing cycle for a cantilevered *long-arm* device with a chambered doctor and anilox roller would be no more than about four months, due to the necessary new machining and new automation, and substantially less for a conventional rack-back linear ramp coater having existing automation. In fact, PRI's confirmatory letter for the first interstation cantilevered device was transmitted to WPC on May 12, 1995, setting 90 days for completion and installation. See Bird Decl., ¶18. The *long-arm*, automated, unit was actually installed by PRI in late August or early September 1995 (see Bird Decl., ¶20), and the first reduction of the invention on a continuous line occurred at WPC by WPC personnel on the six-color triple tower press in mid-September. Note Bird Decl., ¶21.

At no time prior to reissue applicant's summer filing date on August 14, 1995, did anyone at PRI ever disclose any of reissue applicants' claimed invention to reissue applicants, or even produce an off-line, multiple pass reduction of flexographed, and subsequently lithographed, substrate work product similar to what reissue applicants had produced on March 4, 1995, and shown to third parties. Note Bird Decl., ¶¶ 5, 24-26.

It was evident to reissue applicants in early 1995 that a number of rack-back assemblies could be utilized for deployment in their novel process, depending on the degree of modification of these mechanisms according to the desires of the printer and the configuration of the presses to which the rack-back could be attached. It is reissue applicants' position that the 90-day

completion time indicated in the May 12, 1995 Bird letter was a reasonable time for the development and installation WPC would have obtained from any other existing competent manufacturer of an auxiliary unit modified for instation deployment. See Bird Decl., ¶18. It was also clear to reissue applicants that the so-called "E-Z coater" technology of Printing Research (note U.S. Pat. Nos. 5,176,077, 5,207,159 and 5,335,596) could not be easily modified for the expected interstation commercial marketplace and were impractical.

The patent literature indicates that Printing Research's 1995-developed cantilevered retractable device developed for assignee of applicants was not the first pivoting-arm coater. Norton Burdett of Nashua, New Hampshire, was said to have developed a single gravure cylinder roller that transferred coating to a standard press blanket cylinder. The Burdett coater was attached to a pivoting arm, and the unit could be pivoted away from the press unit when not in use. Note U.S. Pat. 5,178,678 to Koehler et al., col. 1, lines 52-56.

V.

THE PATENT PUBLISHED BACKGROUND OF PRINTING RESEARCH, INC. SHOWS PRINTING RESEARCH HAD NEITHER THE TECHNICAL EXPERIENCE OR THE MOTIVATION TO ARRIVE AT APPLICANTS' CLAIMED PROCESS IN 1995

United States patents granted to Printing Research and/or Howard W. DeMoore indicate that the bulk of DeMoore's proprietary work – at least in the form of patented technology – has been in the field of anti-marketing technology at the end-of-press stage of a printing press, generally at the delivery drum (filing dates 1971 - 1995), with interstation experience in later years at the transfer station (filing dates 1989 - 1995) and at the perfecting cylinder (1990). In fact, when Bird joined PRI in 1991, the principal efforts of PRI were involved in the field of anti-marketing technology, and PRI was heavily financially involved and dependent on the sales of cheesecloth to printers as an anti-marketing tool, in view of U.S. Pat. 4,402,267. See Bird Decl., ¶7. Since 1993, a much smaller number of these patents have issued to DeMoore in the areas of end-of-press drying equipment (filing dates 1993 - 1995) and high velocity interstation dryers (filing dates 1993 - 1995), of which Bird had a major role. See Bird Decl., ¶7. DeMoore also

marketed, as indicated above, a proprietary end-of-press coater having a chambered doctor under the brand name "E-Z" (filing dates 1991 - 1993), of which very few were sold and those which were sold were, on information and belief, most or all returned for credit.

Ronald Rendelman of Printing Research co-authored several U.S. patent applications with DeMoore, all published well subsequent to reissue applicants' filing date in 1995 and not considered as prior art to reissue applicants' invention herein. John W. Bird, an employee at one time of Printing Research and author of the applications maturing into U.S. Pat. Nos. 4,796,556 and 4,841,903 mentioned above, also was the patentee of U.S. Pat. No. 4,939,992 for "flexographic coating and/or printing method and apparatus," directed to the flexographic printing of cardboard using interstation equipment. Sheetfed offset lithography was not utilized in the '992 patent. Bird was the national sales and marketing manager of Printing Research from January 1992 until early 1997, and had a working relationship with Printing Research until early 1998. See Bird Decl., ¶6.

DeMoore has had issued isolated patents in the fields of perfecting cylinder anti-marking, wash-up systems for printing presses, and the aforementioned retractable and general integrated systems of flexography and sheetfed offset lithograph, the latter all published after the date of reissue applicants' application and invention. Note European Pat. No. 741,025 A2, those process embodiments derived from reissue applicants.⁶

None of the issued patents in the United States to DeMoore, Rendleman, or Bird indicates general or substantial experience of those persons with the flexographic arts, especially if combined with sheetfed offset lithography, until after their disclosure to them of reissue applicants' invention in 1994. None of the issued U.S. patents to DeMoore, Bird or Rendleman indicate they had experience in the printing of metallic inks, let alone metallic integrated printing, which gave rise to the present invention, or with the advantages and shortcomings of the WIMS patent, U.S. Patent No. 5,370,976. None of the issued U.S. patents to DeMoore,

⁶ Those portions of EP 741,025 (A2) which overlap the patent being reissued were derived from reissue applicants via John Bird. See Bird Suppl. Decl., ¶9.

REISSUE APPLICANTS' MEMORANDUM CONCERNING
THE PRIOR ART AND THEIR POSITION ON PATENTABILITY

Rendelman or Bird as of the fall of 1994 taught the modification of a rack-back or retractable coater for interstation deployment as a flexographic printer, complete with the teaching of the use of an anilox roller, chambered doctor and the use of flexographic plates.

CONCLUSION

The invention grew, in part, out of a desire to enhance the brilliance of gold and silver and other opaque inks produced by offset lithography in the atmosphere of WIMS integrated printing. Reissue applicants know of no technology prior to the field of metallic integrated printing, i.e., four color process printing, that attempts to achieve full color reproduction of metallic subject matter.

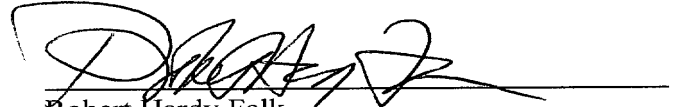
The cost of the laborious, multiple, non-electronic, hand-masking steps of the aforementioned prior art MIPP system as opposed to WIMS, would further discourage the artisan from wanting to introduce the additional cost and complexity of an upstream flexographic step.

Reissue applicants' assignee since 1992 have had, by far, the greatest experience with its proprietary WIMS process to enhance metallic reproduction, and therefore had the greatest, if not unique, motivation to arrive at the claimed process.

Reissue applicant's submit researchers in offset lithography inexperienced in metallic integrated reproduction and working for large institutions such as printing press manufacturers or large commercial printers, had no motivation to introduce flexography upstream of the normal offset lithography stations. Reissue applicants likewise submit researchers in offset lithography of small independent contractors and graphic designers, such as Bird, and DeMoore and Rendleman of Printing Research, would have had even less motivation (in the absence of significant metallic integrated printing experience) to make the desired changes unless they were provided a specific job order to design equipment by someone experienced in the art, which is what happened here.

The facts clearly indicate reissue applicants had an early and complete conception of the invention, which grew out of the unique motivation to improve the WIMS process. Further, the sequence of events in late 1994 and early 1995 show reissue applicants disclosed their invention to PRI which was requested and did manufacture a modified rack back for interstation use in reissue applicants' *process* invention.

Respectfully submitted,



Robert Hardy Falk

Registration No. 27,877

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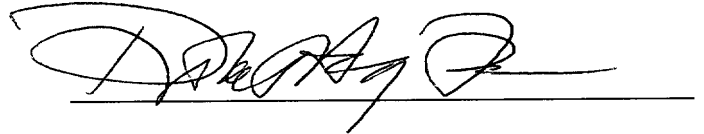
Facsimile: (214) 969-5941

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CERTIFICATE OF SERVICE

This is to certify that the foregoing Reissue Applicants' Memorandum Concerning the Prior Art and Their Position on Patentability was served on Plaintiffs' counsel of record by placing a true and correct copy in the United States Mail, postage prepaid, on the 7th day of April, ~~1999~~ 2000, addressed as follows:

William D. Harris, Jr., Esq.
Locke Liddell & Sapp LLP
2200 Ross Avenue, Suite 2200
Dallas, Texas 75201-6776



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THE UNIVERSITY OF CHICAGO

A

In re the Reissue Application of:

[illegible]

Group Art Unit: 2854

Examiner: _____

A circular stamp from the Office of Intellectual Property (OIP). The text "OIP" is at the top, "JC65" is at the top right, "APR 07 2000" is in the center, and "PATENT & TRADEMARK OFFICE" is at the bottom.

DECLARATION OF STEVEN BAKER

SIR:

I, Steven Baker, declare on my oath the following:

1. I am over twenty-one (21) years of age, have never been convicted of a felony, and am competent to make this testimony. I reside at ²⁰⁷~~209~~ Craig Drive, Heath, Texas 75032. I am currently employed as a salesman by Epic Products International Corporation, located at 2801 E. Randol Mill Road, Arlington, Texas 76011.

2. From about August of 1991 through July 1997 I was employed as a salesman at Printing Research Corporation of Dallas, Texas. I was told on January 2, 1997 that I was a "contractor" rather than an employee, but at that time I continued receiving business cards identifying me as a salesman of Printing Research Corporation, worked forty hours a week for Printing Research, and had ~~an~~ ^{NO} ^(SPS) office at Printing Research. I paid my own taxes during this period. The Internal Revenue Service ruled that I was, in fact, an employee in this period after

January 2, 1997, and I was given credit for the social security taxes I paid, and in due course I received from Printing Research a 401K contribution for 1997.

3. I graduated from East Texas State University in 1975 with a B.S. in Journalism – Printing Management and have had a career in printing and sales in the printing and food industries up until I went to work for Printing Research in August 1991.

4. Sometime in late July 1994 I met with Bill Davis and Jesse Williamson on a Sunday in Atlanta, Georgia. I remember some intense business discussions which occurred at a Morton's Steakhouse in Atlanta. The discussions are very memorable to me, in part because it was late on Sunday and we were lost in Atlanta and it took a long time to find a good place to eat which was open.

5. I was aware as of the time of this meeting that the employer of Jesse Williamson and Bill Davis, Williamson Printing Corporation, had settled a lawsuit with my employer, Printing Research Corporation, and that part of the settlement involved an obligation on the part of Williamson Printing Corporation to buy a set amount of equipment and/or supplies from Printing Research. The atmosphere was friendly at the restaurant, and in fact it was my understanding that Williamson Printing had already committed to purchasing dryer equipment from Printing Research for a line of Heidelberg printing presses to be installed at Williamson starting in late 1994 running well into 1995. In fact, as part of the Atlanta trip, I showed Jesse Williamson a Printing Research-constructed HV interstation drier at a local carton printer manufacturer in the Atlanta area. I was informed of Williamson Printing Corporation's proprietary "WIMS" process concerning the printing of metallic inks, and was informed by Jesse Williamson and Bill Davis that a patent application was pending concerning the "WIMS" process. I recall being shown some Rolex watch advertisements that were part of some jewelry catalogues that were printed by what Jesse Williamson and Bill Davis described as the WIMS process, and that I was impressed with the brilliance of the gold and silver in the advertisements. Jesse Williamson even picked up the bill for dinner, which was unusual, because I was the salesman trying to sell Williamson equipment.

DECLARATION OF STEVEN BAKER

6. It was clear to me that the discussions took place in confidence and that Jesse Williamson and Bill Davis intended that I not publicize outside those with a need to know what was being discussed at the restaurant meeting in Atlanta.

7. Jesse Williamson and Bill Davis spoke that they had an invention to improve the WIMS process to make the metallic inks printed appear even more brilliant. They confided in me that they wanted to use flexography at a station they designated "upstream" – perhaps even the first station – of one or more offset lithographic presses that they would receive from Heidelberg. They mentioned several ways in which this could be done – by a dedicated flexographic station which would replace an existing lithographic station, by a bolt-on manually added device that would be used on a run-by-run basis, or most preferably, a retractable or "rack-back" mechanism which would have to be modified for "upstream" use. They mentioned that with respect to the rack-back option, that they would have to have with the retractable mechanism an anilox roller, a chambered doctor, and the use of state-of-the-art flexographic plates. They mentioned they had just seen the use of some of these flexographic plates in Germany, and that a number of companies sold high-resolution plates which would work in their new process. They asked me whether or not Printing Research was interested in supplying these types of rack-back or retractable devices, and I told them that Printing Research had available for modification such a rack-back which was not dissimilar to Dahlgren International's device currently sold, or other devices which were sold by our competitors. Our rack-back was developed, I recall, by a fellow Printing Research employee, John Bird, when John Bird was employed previously at another company in the eastern part of the United States. I believe that these machines were being supplied to us by a company called Effritz Tool Company.

8. Jesse Williamson and Bill Davis indicated to me that they wanted to run some tests at Printing Research using the retractable equipment which might be modified for interstation use. These tests – conducted for Williamson Printing Corporation – occurred later in 1994, I recall in October, possibly as late as November. I recall Williamson supplying the flexographic inks and the flexographic plates for these tests, conducted at their direction.

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9. After the July 1994 Atlanta meeting – a meeting in which Williamson had not yet committed to purchase the rack-back devices from Printing Research, but was interested in Printing Research's potential modification of its rack-back to fit the new and improved process of Jesse Williamson and Bill Davis, and upon my return to Dallas, I conveyed to John Bird and Steve Garner of Printing Research the confidences I had learned in Atlanta of the new process. In the months that followed, in an effort to get the business, Printing Research did start working and did develop a coater for Williamson Printing that was called "the Rendleman coater" by those of us at Printing Research, including Bird, Garner and me. The unit was modified to be cantilevered rather than linear. The mechanical engineering was done by Rendleman, who I recall was not an "idea man," but just did the mechanical design work which was requested by his superiors. In addition to John Bird and Steve Garner, I informed Howard DeMoore of the trip, although I cannot recall if I told him of all the technical details I told John Bird and Steve Garner. There were actually two cantilevered devices built for Williamson Printing Corporation – a short-arm end-of-process device first installed on the coating tower of a new 7 color Heidelberg CD – the installation I recall in late February or thereabouts – and a series of long-arm devices built for interstation use, the first deployed later in 1995.

10. I recall a meeting that took place at Williamson in January 1995 prior to the installation of the first, or short-arm device. The meeting took place, as I recall, in Conference Room E at Williamson Printing Corporation, attended by Jesse Williamson, Bill Davis, John Bird and myself. At this meeting, Jesse Williamson told John Bird and myself that he (Williamson) and Davis were going to file a patent application on the new process. I recall that going back to the offices of Printing Research, Bird was amazed that anyone could obtain patent protection on a process apart from the "iron," i.e., a device used in carrying out that process. He called it a brilliant move, but did not know whether such patenting could take place.


11. Recently, I spoke with Howard DeMoore at an industry conference in Chicago (the Graph Expo '99 Conference). Howard claimed he was amazed that Williamson – he alleged

– was claiming the "Rendleman coater" My belief is that Bird and DeMoore are confused as to the difference between claiming a process and a device to carry out that process.

12. There is no doubt in my mind that based upon (1) my discussions with Jesse Williamson and Bill Davis in Atlanta in July 1994, (2) their prior development of the WIMS process as described to me in 1994, (3) the information I conveyed to at least John Bird and Steve Garner of Printing Research upon my return from Atlanta in July 1994, and (4) my personal knowledge of the skills and work history of Rendleman, Bird and DeMoore, that none of Rendleman, Bird and DeMoore had any part in the invention of the process of the captioned '363 patent which was disclosed to me in July 1994 in Atlanta. Rendleman was essentially a skilled mechanic to build what others wanted. DeMoore was a pressman by trade. Bird admitted to me he did not invent the process, and I knew that anyway.

The undersigned Declarant stated further that all statements made herein of Declarant's own knowledge are true, and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code, and that such statements may jeopardize the validity of the application of any reissue patent issuing thereon.


Steven Baker


Date:

THE UNIVERSITY OF CHICAGO

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IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re the Reissue Application of: §
BILL L. DAVIS and JESSE S. WILLIAMSON §
§
For Reissue of U. S. Patent 5,630,363 § Group Art Unit: 2854
Issued May 20, 1997 §
Serial No. 08/515,097 §
§
Filing Date: May 20, 1999 (Reissue) § Examiner: _____
§
Serial No.: 09/315,796 (Reissue) §
§
For: COMBINED LITHOGRAPHIC/ §
FLEXOGRAPHIC PRINTING §
APPARATUS AND PROCESS §

DECLARATION OF JOHN W. BIRD

TO: The Honorable Commissioner of
Patents and Trademarks
Washington, D.C. 20231

SIR:

I, John W. Bird, declare on my oath the following:

1. I am over twenty-one (21) years of age, have never been convicted of a felony, and am competent to make this testimony. I am President of JB Machinery Incorporated, 9 Sasqua Trail, Weston, CT 06883. My *curriculum vitae* is attached hereto as Exhibit 1.

2. I have read U.S. Patent 5,630,363 to Davis and Williamson and am familiar with its specification, drawings, and claims. A copy of the '363 patent is attached hereto as Exhibit 2. I am aware that Davis and Williamson filed a reissue application seeking to make corrections in some of the claims of, and also seeking to add new claims to, the '363 patent, specifically claims 42-87. A copy of what I understand to be the reissue claims, which I have read, is attached as Exhibit 3.

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Machinery) for alleged trade dress infringement and copyright infringement over my company's new brochures concerning drying equipment. Prior to early 1991, I was a principal (President and CEO) in Birow, Incorporated, located at 8 Clover Lane, Westport, Connecticut 06880. Shortly after arriving at PRI in early 1991, as part of the negotiations with PRI, I was required to grant PRI an exclusive license in Birow's proprietary methods and apparatus developed by me. See Exhibit 5. That license included U.S. Patent Nos. 4,796, 556 (Exhibit 6), 4,841,903 (Exhibit 7), 4,895,070 (Exhibit 8), and 4,939,992 (Exhibit 9), as well as a patent application, Serial Number 07/336,435, filed the same day as the application leading to the '992 patent, which I believe never issued. My experience that I brought to PRI was in the graphic arts, lithography, flexography, screen printing and coating applications, including the construction of coaters and driers. As of 1991, I do not recall flexographic applications existing in the offset lithography art other than end-of-press specialized applications. The arts were different. Flexography was used in the manufacture of boxes, bags and labels. I also brought with me to PRI a retractable, end-of-press coater, or "rack-back" coater as the term is often used in the industry. As I recall, we sold very few of these at PRI. A copy of a PRI brochure (printed about 1994) depicting this technology, which I brought to PRI, is attached hereto as Exhibit 10. At the time I arrived at PRI in early 1991, PRI was developing the so-called "E-Z" coater, which was developed in the early 1990s, and which used a chambered doctor system, the subject of several PRI patents (U.S. Patent Nos. 5,176,077, 5,207,159, and 5,335,596, attached hereto in a group as Exhibit 11). I believe I was the only person at PRI in 1991-1995 that had any significant experience in flexography. In hindsight, the only people anywhere in the world which would have had the motivation in 1994-1995 to go "upstream" with flexography in an offset lithography press would be a printer or a manufacturer of inks or coating, probably metallic inks or coatings. A small manufacturer of auxiliary equipment for presses, such as PRI, in my opinion would not have such motivation other than to produce a product in response to an order.

7. When I joined PRI in early 1991, the principal efforts of PRI were involved in the field of anti-marking technology. The company was heavily financially dependent on selling

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specially-tailored sheets of cheesecloth as an anti-marking tool (U.S. Patent No. 4,402,267, Exhibit 26 hereto), the so-called "Superblue™" netting, to expire in September 6, 2000. I feel my contribution to PRI was primarily in the development of drying equipment, including end-of-press and interstation drying equipment and to introduce them to a retractable or "rack-back" coater.

8. In February 1991, at about the time I arrived at PRI, Howard DeMoore filed a lawsuit against WPC, styled *Printing Research, Inc. and Howard W. DeMoore v. Williamson Printing Corporation, Jerry B. Williamson, Jesse Williamson and Buford Roy Williams*, Civil Action No. 3:91-CV-0389-X (Northern District of Texas, Dallas Division), which was settled on or about October 1, 1993. The basic terms of the settlement had been worked out several months before October 1, 1993 (actually sometime in May 1993, as I recall), and accordingly, I started approaching Williamson in the early summer of 1993 to start purchasing PRI's products (see letter of June 25, 1993, authored by me, Exhibit 12). On several occasions in late 1993 and the first half of 1994, I dropped by the offices of WPC, providing brochures and handouts of PRI products I thought WPC might possibly be interested in.

9. I was aware in 1993 and 1994 that WPC was seeking to replace its aging printing presses with new, state-of-the art presses, and I was aware by July of 1994 WPC had more or less decided to go with Heidelberg U.S.A., Inc. and purchased several different presses, to be installed starting in late 1994 and running well into 1995. This presented PRI, in my opinion, with a significant opportunity; as PRI sold good auxiliary drying equipment. I was a major contributor at PRI into the invention, research and developing of drying equipment.

10. I became aware from Steven Baker, one of PRI's salesmen, upon his return in July 1994 from Atlanta, Georgia, of a meeting between Steven Baker, Jesse Williamson and Bill Davis of WPC. Steven Baker told me of a July 1994 meeting in an Atlanta restaurant in which Davis and Williamson told him (Baker), in confidence, of Davis and Williamson's intent to improve the so-called "WIMS" metallic printing process of WPC, U.S. Patent No. 5,370,976 (Exhibit 13), of which at the time I had some familiarity with the process, but not a lot. Baker

of the purchase (Exhibit 16). I supplied WPC with a final purchase agreement schedule on September 15, 1994 (Exhibit 17).

12. Steve Baker also told me on his return to Dallas in July 1994 that Davis and Williamson wanted some experiments run at PRI using my "rack-back" (note again brochure, Exhibit 10). I recall such experiments at PRI conducted in the fall of 1994. These tests were done on PRI's two-color Heidelberg R&D press utilizing an existing "rack back" coater of my design at the end of the press, at the direction of WPC, with WPC supplying most of the flexographic inks and the flexographic plates for the experiments. The tests were chiefly designed to determine the resolution that was possible with the PRI coater, and supplied plates and coatings. No one-pass tests of the claimed '363 process were done in the fall at PRI. In fact, to the best of my knowledge, no tests were ever conducted at PRI of the '363 invention, only at WPC. In fact, to the best of my knowledge, no off-line simulated tests (flexography done first with a second pass of performing offset lithography in a pass-through) were ever performed at PRI. I never collaborated with Bill Davis or Jesse Williamson or anyone else at Williamson concerning the '363 invention in 1994 or 1995. Again, PRI, to the best of my knowledge, does not have any late 1994 or early 1995 record, notebooks, e-mails or memoranda concerning any conception by PRI of the '363 claimed invention.

13. I suggested that my colleagues start working toward an acceptable flexographic printer coater for use with the Davis-Williamson '363 process. In the late fall of 1994, pursuant to my recommendations, PRI did start working on what was termed in-house as the "Rendleman coater," the first prototype being a cantilevered, "short-arm" device that would fit on an end-of-press Heidelberg-manufactured coating tower of the first Heidelberg press to arrive at Williamson – the so-called "7 color Heidelberg CD." The purpose of our development of the device was clear: we did this to try to get all of WPC's business. We had no firm orders from them for this equipment. That prototype was actually not installed at WPC until late February 1995. The following documents illustrate the timing of development of this short-armed device, which was not intended for interstation deployment, but for use on the low profile of the tower

coater with the intention of going upstream at a later date. On December 16, 1994, I wrote a memorandum to Bill Davis of Williamson (Exhibit 18), in which construction of the proposed short-arm device was not even mentioned. As of that time, only parts of it had been developed by Ron Rendleman, and sat on the floor at PRI. I did not mention the "short arm" device in the December letter. Steve Baker did not even mention the short-arm prototype in his late January 1995 letter to Jesse Williamson (Exhibit 19). Had PRI had the prototype near ready for installation, it would have been mentioned in a letter. In my opinion, the time to develop short-arm prototype of the "Rendleman coater," which was a crude, manually operated device, which took more than 90 days, taken even at a causal pace. Working back from a late February installation, it is clear work on the "short-arm" experimental coater started no earlier than December 1994, which is consistent with my recollection. The "short-arm" device was never intended to perform as an interstation flexographic coater, and could not have. The reason why PRI started working on an experimental, cantilevered end-of-press printer-coater, rather than an interstation unit to perform the '363 process, was that in December 1994 PRI had no commitment from WPC to order such devices, there was no established market for an interstation, and no one at PRI appreciated, much less knew of the details of the '363 inventive process outside of the disclosure made to Baker.

14. I recall that in January 1995 a meeting took place in Conference Room "E" at WPC attended by Steve Baker, me, Bill Davis and Jesse Williamson. At this meeting, Jesse Williamson told Steve Baker and me that he (Williamson) and Davis were going to file for a patent on their new process. I recall commenting to Steve Baker going back in the car to the offices at PRI that I thought it was amazing that anyone could patent a process apart from the equipment – the so-called "iron," which is a term used by many people in our business. I thought it was a brilliant move, but did not know whether such patenting could take place. I had several patents issue to me as of January 1995 (Exhibits 6-9), but didn't know that such a process could be patented, however meritorious.

the best of my knowledge, no one at PRI ever claimed that PRI should share in the recognition of that prize.

17. In March 1995, I test marketed a closed doctor blade chamber recirculation system at a graphics show held biannually in Charlotte, NC. John Lapomarde (retired) previously with Rexham Corporation, had purchased such a unit. PRI sold a system to Lapomarde for installation at the end of his Komori multi-color press, replacing an application roller with an anilox roller, and installing PRI's recirculation closed doctor blade system, on or about mid-to-late 1994. Prior to the installation, we ran tests at PRI to apply metallics and coating using the retractable coater at the end of PRI's two-color Heidelberg press. Howard DeMoore and Ron Rendleman had no input into the tests or our process. Sometime in the spring of 1995 Steve Garner and I showed Jesse Williamson the flexo-applied gold sheets shortly thereafter. That was my first inkling of the potential and subsequent idea to install such device upstream on a litho press. I do not recall writing any memorandum, notebooks, e-mails, or other writings at PRI describing this concept. I never told anyone at WPC about this process.

18. On May 2, 1995, Steve Garner of PRI and I had a meeting at the offices of WPC with Jerry Williamson, Jesse Williamson, Bill Davis and Woody Dixon. The issue of who had what exclusive rights to what part of these marvelous inventions -- the process and the "Rendleman coater" -- came up for the first time, as I recall. No one from PRI questioned WPC's and Davis' and Williamson's rights to patent the process, if they could -- after all, they had told us about the process back in July 1994. This meeting was the first in a series of meetings to discuss potential exclusivity in WPC to sell the interstation "Rendleman coater" -- which had not even been developed yet, let alone reduced to practice. Our original proposal was that PRI would agree to give WPC some degree of exclusivity on selling the "Rendleman coater" to others. In this same time frame, Ron Rendleman, Howard DeMoore and I signed a U.S. patent application to the "Rendleman coater" on May 4, 1995 or a day before, without telling WPC about it. WPC never claimed in our meetings, or in any letter to PRI to the best of my knowledge that any of their people invented the "Rendleman coater." They just wanted us to

DECLARATION OF JOHN W. BIRD

come up with an interstation coater to perform their process, which we did. They could have gone to any one of a number of manufacturers of end-of-press auxiliary coaters and had these devices modified in a relatively short amount of time for interstation deployment. It is my belief that WPC chose PRI because of the October 1, 1993 settlement agreement. Our May 4, 1995 application, as I understood it then and understand it now – did not claim the '363 process. We could not have claimed the process. First, we were not the inventors of the process, and second, we had insufficient information about conducting the process or the results to be expected to make a good disclosure. As of May 4, 1995, PRI knew that WPC intended to file a process application, if it had not already done so. On May 12, 1995 I wrote a confirmatory letter concerning the first interstation unit for WPC (Exhibit 22), which we promised would arrive in mid-August. In fact, it was several weeks late. The short period of 90 days for completion indicated in my May 12, 1995 letter was a reasonable time for the development and installation WPC could have obtained from any other existing competent manufacturer of an auxiliary unit modified for interstation deployment.

19. After my May 12, 1995 letter, PRI and WPC went back and forth in negotiations concerning the extent to which WPC could sell exclusively the "Rendleman coater." To the best of my knowledge, the parties were close but never reached an agreement in writing. It was a failed cross-licensing negotiation, as the correspondence clearly shows.

20. Four cantilevered "Rendleman coaters" were delivered to WPC. To the best of my knowledge, PRI delivered two interstation "Rendleman coater" units to WPC in 1995-1996, the first of which was delivered in late August 1995. End-of-press units were delivered in late February 1995 (the experimental prototype) and early 1996.

21. To the best of my knowledge, WPC never gave PRI a license to make, use, or sell the "Rendleman coater" for performing interstation '363 process. I am not aware of any effort on the part of PRI to approach WPC at any time for such a '363 process license for PRI or the Hallmark Company or anyone else.

22. On October 2, 1995 Rendleman, DeMoore and I filed a second, now series of four patent applications directed to interstation use of flexography where the flexographic stations were not auxiliary units, but dedicated – the press units would have to be substantially modified. To the best of my knowledge, this invention was never actually reduced to practice by PRI, let alone sold. Of the four applications filed in the United States, three were carried forward overseas in Europe and Japan, and three have issued in the United States – U.S. Patent Nos. 5,598,777 (Exhibit 23), 5,651,316 (Exhibit 24) and very recently, 5,960,713 (Exhibit 25). These patents have as originally filed the same specification. They have nothing to do with the "Rendleman coater" and did not claim the '363 process.

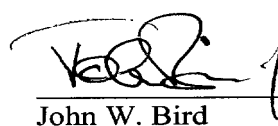
23. The European counterpart of the May 4, 1995 "Rendleman coater" application was published about 18 months after May 4, 1995, i.e., November 6, 1996. (Note EP 741 025 A3, item (43), Exhibit 27).

24. Accordingly, when I review PRI's complaint, I find no important factual merit to it whatsoever. The invention of the '363 patent has never been installed or used outside of WPC. The "Rendleman coater" was developed at the suggestion of Bill Davis and Jesse Williamson for WPC. Neither Ron Rendleman or I ever developed the '363 process, let alone Howard DeMoore. Had PRI invented the process, PRI would never have taken prototypes outside the offices of PRI or told a customer about it without detailed secrecy agreements. Moreover, in my opinion, PRI had no motivation to come up with the process invention because it did not utilize the WIMS process out of which I believe the '363 patent originated. To the best of knowledge, no one at PRI ever told the '363 invention to Davis and Williamson – the reverse I know occurred in July 1994. PRI did not even have the facilities to reduce the '363 invention to practice – even by simulation. If PRI had the capability to use or to simulate the '363 process, the 1995 brochure would have been printed by the new '363 process. The brochure was not. I know intimately the details of the development of the "Rendleman coater" in 1994-1995, had numerous discussions on a week-to-week basis with Rendleman, kept DeMoore informed as to the progress of its development and the installations of the "short arm" (late February 1995) and

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to give PRI a broad-based license to practice the '363 invention. Sixth, the first or "short-arm" experimental "Rendleman coating unit" was delivered in late February 1994, and was end-of-press. Seventh, the first "long-arm" or interstation unit was delivered in late August or early September 1995. Thus, the date given in paragraph 17 of the Complaint of November 1995 is wrong. Again, these are just examples of the misinformation in the Complaint.

The undersigned Declarant stated further that all statements made herein of Declarant's own knowledge are true, and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code.



John W. Bird

12-11-99

Date: